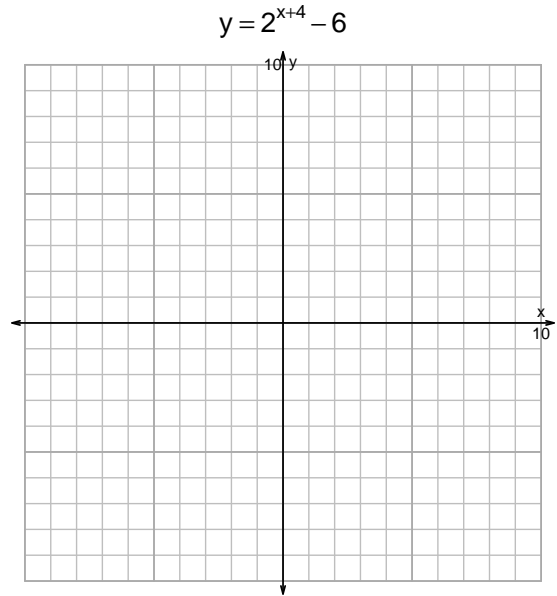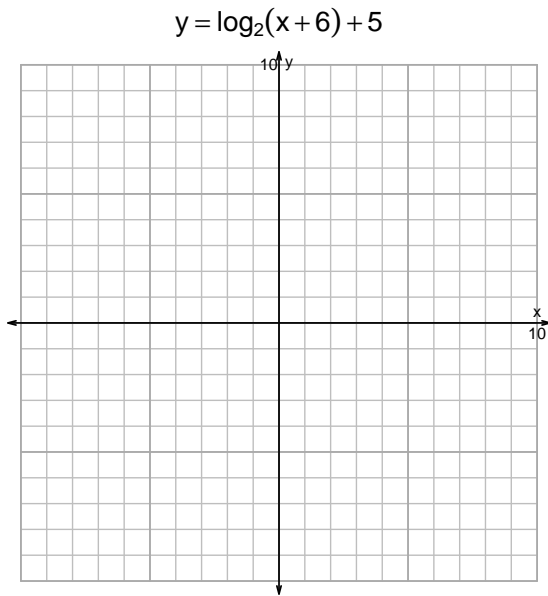Name:                                                          Date:
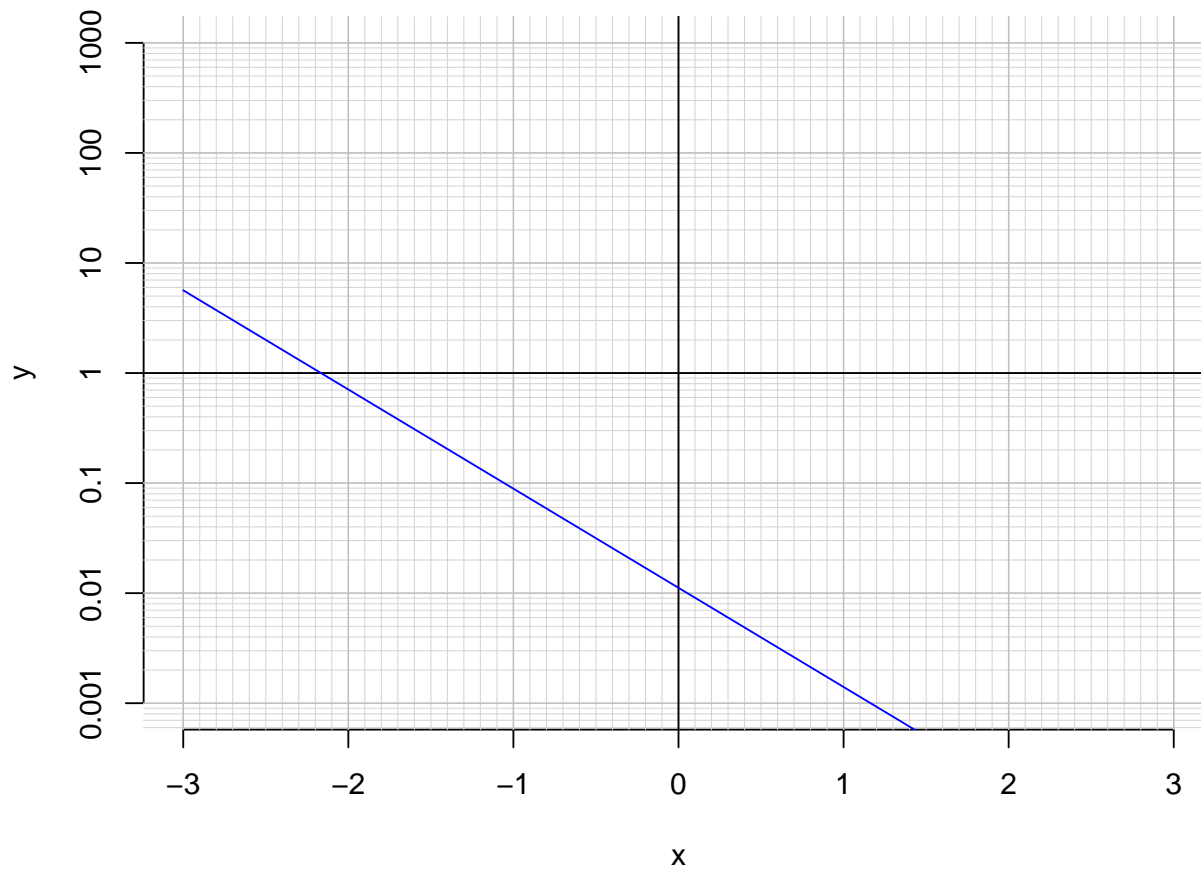
## s18QUIZ: EXP LOG (QUIZ v294)

1. Graph $y = \log_2(x + 6) + 5$ and $y = 2^{x+4} - 6$ on the grids below. Also, draw any asymptotes with dotted lines.

$$y = \log_2(x + 6) + 5$$



$$y = 2^{x+4} - 6$$



2. Write (but do not evaluate) the solution to the equation below by writing a logarithmic expression.

$$-19 = \left( \frac{-7}{3} \right) \cdot 10^{4t/5}$$

3. An exponential function $f(x) = 0.0112 \cdot e^{-2.07x}$ is graphed below on a semi-log plot.



a. Using the plot above, evaluate $f(0.3)$.

b. Express $f^{-1}(x)$, the inverse of $f$.

c. Using the plot above, evaluate $f^{-1}(2)$.